

Title (en)
CONTROL DEVICE FOR CATALYST TEMPERATURE RAISING SYSTEM

Title (de)
STEUERVORRICHTUNG FÜR EIN SYSTEM ZUR ERHÖHUNG DER TEMPERATUR EINES KATALYSATORS

Title (fr)
DISPOSITIF DE COMMANDE POUR SYSTÈME D'ÉLEVATION DE TEMPÉRATURE DE CATALYSEUR

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Application
EP 22824564 A 20220311

Priority
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Abstract (en)
A stoichiometric injection volume, which is an amount of fuel to each cylinder(45A to 45D) that is a theoretical air-fuel ratio with respect to an intake air volume into an internal combustion engine (10), is calculated. An allowable amount of hydrocarbons purified by an NSR (61) (first catalyst) is calculated based on a temperature of the NSR (61). It is determined whether warming-up of an SCR (62) (second catalyst) is necessary. If it is determined that the warming-up is necessary, a stoichiometric injection volume is injected in multiple stages such that the hydrocarbons, remaining in the exhaust discharged into an exhaust manifold (12A) in an exhaust stroke of each cylinder (45A to 45D), does not exceed an allowable amount of the NSR (61). Some fuel injected in the post injection is supplied as unburned fuel together with residual oxygen to the NSR (61). An oxidation reaction occurs between the unburned fuel and residual oxygen in the NSR (61) and its reaction heat effectively increases the temperature of the SCR (62).

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